

Remarks

This Amendment is being filed concurrently with a Request for Continued Examination ("RCE"). Reconsideration and allowance of this application, as amended, are respectfully requested.

Claims 1, 4, 11, and 19 have been amended. Claims 1-21 remain pending in the application, with claims 13-16 withdrawn from consideration as being directed to a non-elected invention. Claims 1, 13, and 19 are independent. The rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein. No new matter has been introduced through the foregoing amendments.

Claim 11 has been amended to overcome the ground of rejection under 35 U.S.C. § 112, second paragraph. Instant claim 11 recites that "the porous material is configured as a plurality of plates arranged in the region of the calibration cage, with the plurality of plates being positioned to face the film tube."

Claims 1 and 19 have been amended to even more specifically define a feature of the claimed system. Each claim recites in pertinent part that the film guiding elements guide the film *with air*. Claim 4 has been amended for consistency with instant claim 1.

Entry of each of the amendments is respectfully requested.

Before turning to the remarks in support of patentability, Applicants note the following with regard to the rejection of claim 21. The examiner relies upon U.S. Patent Application Pub. No. 2002/0076459 of Joseph as the fourth reference in the asserted combination of references. But, the Joseph document is not listed on the PTO-892 "Notice of References Cited" that accompanies the present Office Action. Applicants therefore respectfully request that a corrected PTO-892 accompany the next communication from the U.S. Patent and Trademark Office.

35 U.S.C. § 103(a) – Rettig and Pottorf

Claims 1-4, 10, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,321,563 to Rettig et al. (hereinafter "Rettig") in view of U.S. Patent No. 5,700,489 to Portoff. The Office Action acknowledges that "[i]n the invention of Rettig, the guiding element has a fixed radius" (Office Action page 3).

The rejection of claims 1-4, 10, and 18 under § 103(a) based on Rettig and Pottorf is respectfully deemed to be obviated. For at least the following reasons, the combined disclosures of Rettig and Pottorf would not have rendered obvious Applicants' presently claimed invention.

As indicated above, instant claim 1 defines an embodiment of the invention that includes, *inter alia*, "film guiding elements

that guide the film tube with air . . . , the film guiding elements containing a porous material and being movable in a radial direction relative to the film tube so as to define a diameter of the film tube."

Rettig discloses a process for the production of film from polypropylene (column 1, lines 12-15). A thermoplastic is extruded through an annular nozzle (column 1, lines 16-28). The tubular film is expanded to the desired diameter with air (column 1, lines 21-23). Next, the film tube is guided through a cooling device so that it cools to a temperature lower than the setting point of the thermoplastic. Then, the film tube is squeezed between a pair of rollers and taken off (column 1, lines 25-28). Rettig's cooling ring 7 has supply lines for the cooling medium (air or water) and a wall that can consist of a porous ceramic material (column 3, lines 25-61).

But, Rettig's device is structurally and functionally different in certain respects from Applicants' presently claimed system. According to Applicants' claimed system, the film tube 9 is first guided with air through a calibration cage 20, the diameter of which delimits the diameter of the film tube. Afterwards, the film tube 9 is guided through a flattening unit 21 in which the film tube 9 is transformed into a two-ply film web (specification page 4, last paragraph). The claimed system includes "film guiding elements [that are] *movable in a radial direction relative to the film tube so as to define a diameter of*

the film tube" (see specification page 5, first paragraph). In one embodiment of the invention, the film guiding elements are compressed air reservoirs 26 that include plates made of the porous material 27. The plates 27 are arranged in such a way that the air exerts a force onto the film tube 9 (specification page 5, last paragraph).

Rettig fails to disclose, *inter alia*, Applicants' claimed feature of film guiding elements that are movable in the radial direction. Instead, Rettig discloses a device capable of producing a film tube having a *diameter that is fixed by the width of the cooling ring 7*. That is, Rettig discloses that "[t]he air carries out a perpendicular and laminar flow to the surface of the tubular film 2 in the width of the cooling ring 7" (column 3, lines 61-63). That is not Applicants' claimed invention.

The Office Action relies upon the disclosure of Pottorf to rectify the above-described deficiencies of Rettig. But, there is simply no teaching in either Rettig or Pottorf that would have led one to select the references and combine them in a way that would produce the invention defined by any of Applicants' pending claims. In fact, Applicants submit that the two references are not logically combined, because Rettig and Pottorf teach very different materials from one another for guiding the extruded film.

See Pottorf's abstract, and the description of the drawbacks of the prior art, the objects of his invention, and the

summary of the invention (column 1, line 11, through column 3, line 24). In the abstract, Pottorf discloses that [a]n external stabilizer employed in a plastic film blowing apparatus incorporates one or more extruded members that carry a *low-friction plastic wear cover*" (emphasis added). One point of emphasis in Pottorf's "Objects and Summary of the Invention" is on "provid[ing] a *guide member that provides long life and significantly reduces friction* and other related problems with respect to the extruded film that is being drawn therethrough" (column 2, lines 33-36). Accordingly, Pottorf teaches that

The improved external stabilizer means comprise an *extrusion of aluminum or other light-weight metal*, in combination with *low-friction wear material disposed on its front surface*. In one favorable embodiment, the aluminum extrusion has a mushroom-shaped cross section, with a half-round (i.e., semi-cylindrical) front side, a flat back plate, and upper and lower recesses or notches. *The wear material is in the form of a low-friction plastic extrusion having a half-round profile that matches the shape of the front side of the aluminum extrusion, and upper and lower inwardly-directed flanges or lips that fit into the recesses of the extrusion* (column 2, lines 53-64).

However, as the Office Action acknowledges, Rettig discloses a completely different type of film guide element. Rettig is interested in providing a uniform flow of a cooling medium, not in reducing friction. That is, Rettig teaches that "[a] uniform flow of the cooling medium in the annular cooling zone surrounding the tubular film can be achieved particularly advantageously by allowing compressed air to escape through a *porous material* in the

direction of the tubular film" (column 3, lines 15-19). Rettig discloses that "[e]xamples of suitable porous materials are felts and other non-woven fabrics, multilayer fabrics, sponges and particularly porous ceramic materials and also materials consisting of particles of metal or plastics which have been sintered together" (column 3, lines 25-29).

Rettig's required "porous material" is therefore very different in structure and function from Pottorf's required "low-friction plastic extrusion." In view of their very different objects and teachings, the person having ordinary skill in the art most certainly would not have looked to the asserted combination of references in order to reach Applicants' claimed invention.

Accordingly, the combined disclosures of Rettig and Pottorf would not have rendered obvious the invention defined by Applicants' claim 1. Claims 2-4, 10, and 18 are allowable because they depend, either directly or indirectly, from claim 1, and for the subject matter recited therein.

35 U.S.C. § 103(a)

Since the Rettig/Pottorf combination is applied in each of the other rejections under § 103(a) -- claims 5-9 and 17 as being unpatentable over Rettig and Pottorf and further in view of DE 203 09 429 to Meyer; claims 10-12 as being unpatentable over Rettig and Pottorf and further in view of U.S. Patent No. 4,408,970 to Bustin et al. ("Bustin"); claims 19 and 20 as being unpatentable

over Rettig and Pottorf and further in view of Bustin; and claim 21 as being unpatentable over Rettig, Pottorf, and Bustin and further in view of U.S. Patent Application Pub. No. 2002/0076459 of Joseph -- each of these rejections is also respectfully traversed. The combined disclosures of the cited references would not have rendered obvious Applicants' claimed invention because the disclosures of Meyer, Bustin, and Joseph do not rectify any of the above-described deficiencies of Rettig and Pottorf.

Furthermore, there is simply no teaching in any of the references that would have led one to select the references and combine them in a way that would produce the invention defined by any of Applicants' pending claims.

Therefore, the various combinations of references would not have rendered obvious the embodiments of the invention defined by Applicants' pending claims 5-12, 17, and 19-21.

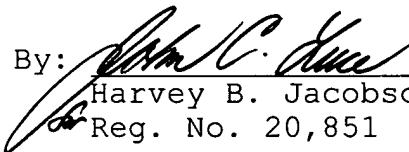
In view of the foregoing, this application is now in condition for allowance. If the examiner believes that an

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interview might expedite prosecution, the examiner is invited to
contact the undersigned.

Respectfully submitted,

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